

Amendments to the Drawings

The attached sheet of drawings includes changes to Figure 1, in which reference box 26 has been labelled “DENSITY METER”; reference box 30 has been labelled “CONTROL APPARATUS”; reference box 76 has been labelled “PRESSURE REGULATOR”; reference box 84 has been labelled “FILTER”; and reference box 100 has been labelled “PUMP.”

Attachment: Replacement sheet.

REMARKS

The following remarks are intended to be fully responsive to the Office Action mailed April 4, 2005:

Claims 1-17 are pending. Claims 1 and 6-8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown et al (US 2003/0167824). Claims 1, 2, and 6-8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown et al (WO 01/30174). Claim 17 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out and particularly claim the subject matter which applicant regards as the invention. Claims 3-5 and 9-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. Applicants have amended claims 1 and 3. Applicants have cancelled claim 6.

Objections to the Drawings

Figure 1 is objected to because certain reference boxes do not contain labels. Applicants have amended Figure 1 accordingly, as described in the drawing amendment section of this paper.

Objections to the Specification

The Examiner objected to the specification at page 5, paragraph [0016], line 10. The Examiner stated that the term “that” should be inserted after the term “such.” Applicants have amended paragraph [0016], line 10 accordingly.

The Examiner objected to the specification at page 5, paragraph [0016], line 11. The Examiner stated that the term “draw” should be corrected to read “drawn.” Applicants note that “fluid draw,” as used in paragraph [0016], line 11, refers to the action of drawing fluid, as understood by those skilled in the art, and therefore Applicants submit that the use of the term “draw” is proper. However, for clarification, Applicants have amended paragraph [0016], line 11 to recite “to simulate drawing fluid from a sump.”

The Examiner objected to the specification at page 6, paragraph [0018], lines 1-7, due to the omission of a reference to “tubes 26 in the second hydraulic circuit.” However, Applicants note that the reference number 26 refers to a density meter, whereas reference number 46 refers to tubes. Applicants have amended paragraph [0018] to recite “The second hydraulic circuit 92 includes tubes 46 at least partially defining a conduit through which the fluid flows.”

Applicants respectfully submit that the objections to the specification are overcome.

Claim Rejection – 35 U.S.C. § 112, Second Paragraph

Claim 17 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner stated, “Re claim 17, claim lines 15 and 16: How does one ‘isolate the density effects of air entrainment from the density effects of temperature’ if one does not first compensate for temperature in the processing/sampling environment? The claim fails to disclose any means for measuring temperature, compensating for changes in temperature, or establishing that the first and second transient response periods are both at the same temperature.”

Applicants note that such a rejection, i.e., for failure to particularly point out and distinctly claim the subject matter that Applicants regard as their invention, is appropriate only where applicant has stated somewhere other than in the application as filed that the invention is something different from what is defined by the claims. See MPEP § 2172. In other words, the invention set forth in the claims must be presumed, in the absence of evidence to the contrary, to be that which applicants regard as their invention. *Id*, citing *In re Moore*, 439 F.2d 1232, 169 USPQ 236 (CCPA 1971). Applicants respectfully submit that Applicants have not stated that the invention is something different from what is defined by claim 17, and, accordingly, the rejection of claim 17 under 35 U.S.C. § 112 is improper.

Claim Rejections – 35 U.S.C. § 103

Claims 1 and 6-8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown et al (US 2003/0167824), hereinafter referred to as “Brown I.” Claim 1 recites, *inter alia*, “a reservoir for containing the fluid.” The Examiner states that “Brown et al. discloses … a reservoir/flow line (2) containing the fluid.” Applicants note that element 2 of Brown I is a “main supply pipe.” See page 2, paragraph 0026 of Brown I. A “pipe” is not a “reservoir.” A “pipe” is a “hollow cylinder … used for the conveyance of water, gas, steam, petroleum, etc.” Websters New Universal Unabridged Dictionary (1996). (emphasis added). In contrast, a “reservoir” is a “receptacle or chamber for holding a liquid or fluid.” Webster’s New Universal Unabridged Dictionary (1996). (emphasis added).

Thus, a pipe conveys liquid, whereas a reservoir holds liquid. Brown I refers to element 2 as a pipe and teaches that it is used for conveying liquid “from a gasification unit to a process for utilizing the gasified liquid.” Brown I, page 2, paragraph 0026. Brown I therefore does not teach a “reservoir” as recited by claim 1.

For a rejection to be proper under 35 U.S.C. § 103(a), the prior art reference or references must teach or suggest all the claim limitations. MPEP § 2143. According, the rejection of claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Brown I is improper.

Furthermore, Applicants have amended claim 1 to recite “a control apparatus operatively connected to the density meter and configured to record the density of the fluid a plurality of times during the transient air entrainment response period.” (emphasis added). Brown I does not teach or suggest a control apparatus “configured to record the density of the fluid.”

Applicants note that the elements and limitations added to claim 1 are substantially identical to the elements and limitations of cancelled claim 6. In the rejection of claim 6, the Examiner does not address a control apparatus configured to

record the density of the fluid. Rather, the Examiner merely states that “the reference discloses that the results of the density meter are used to control the aeration of the fluid material.” Thus, Brown I does not teach or suggest a control apparatus configured to record the density of the fluid, as recited by claim 1.

Claim 8 recites “generating a first set of data by recording a corresponding measured density of the fluid for each of a plurality of time values.” (emphasis added). Accordingly, the analysis presented for claim 1 applies to claim 8: Brown I does not disclose recording measured density of the fluid for each of a plurality of time values. Accordingly, Applicants submit that claim 8 is allowable.

Claims 1, 2, and 6-8 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown et al. (WO 01/30174), hereinafter referred to as “Brown II.” As noted above, claim 1 has been amended to recite the elements and limitations of cancelled claim 6, namely, “a control apparatus operatively connected to the density meter and configured to record the density of the fluid a plurality of times during the transient air entrainment response period.” Brown II does not teach or suggest “a control apparatus … configured to record the density of the fluid,” as recited by claim 1. The Examiner states, on page 6 of the Office Action, that Brown II “discloses that the results of the density meter are used to control the aeration of the fluid material.” However, using the density meter to control aeration does not necessarily require or imply recording the density. For example, it is likely that Brown II employs a *transient* feedback control signal from the density meter 15 to the aerator 12 to adjust the amount of aeration in response to the control signal. Indeed, Brown II merely states that “the amount of gas injected into the chocolate by aerator 12 is controlled in response to the output of a density meter 15. …” at page 4, lines 21-23. Accordingly, Applicants submit that amended claim 1 recites elements and limitations that are neither taught nor suggested by Brown II, as required for a proper determination of obviousness.

As noted above, claim 8 recites “generating a first set of data by recording a corresponding measured density of the fluid for each of a plurality of time values.”

(emphasis added). Accordingly, the analysis presented for claim 1 applies to claim 8: Brown II does not disclose recording measured density of the fluid for each of a plurality of time values. Accordingly, Applicants submit that claim 8 is allowable

Claims 2 and 7 depend from claim 1 and are therefore allowable for at least the same reasons that claim 1 is allowable. Furthermore, in rejecting claim 7 under both Brown I and Brown II, the Examiner states that “Brown et al. discloses that the density meter … is a vibrating tube type. The examiner argues that this type of device is equivalent to a Coriolis flowmeter, since the density meter cited in the specification is a U-shaped vibrating tube which are the shapes used in Coriolis flowmeters comprising either a single U-shape or a double U-shape.”

However, the relevant issue under 35 U.S.C. § 103(a) is not whether the cited reference discloses an “equivalent” of a recited claim element that has some common structural attributes, but rather whether the cited reference teaches or suggests the recited claim element. Even assuming, *arguendo*, that the density meters of Brown I and Brown II have some common structural similarities with the Coriolis flowmeter of claim 7, there is no teaching or suggestion in Brown I or Brown II that the density meter disclosed is a Coriolis density meter.

Allowable Subject Matter

Claims 3-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include all the limitations of the base claim and any intervening claims. Claim 3 has been rewritten in independent form to include the limitations of claim 1, from which original claim 3 directly depended. Applicants therefore submit that claim 3 is in condition for allowance. Claims 4 and 5 ultimately depend from claim 3 and are therefore no longer dependent upon a rejected base claim.

Claims 9-16 ultimately depend from claim 8 and are therefore allowable for at least the same reasons that claim 8 is allowable.

CONCLUSION

This Amendment is believed to be fully responsive to the Office Action mailed April 4, 2004. The remarks in support of the rejected claims are believed to place this application in condition for allowance, which action is respectfully requested.

Please charge any fees associated with this amendment to deposit account 07-0960.

Respectfully submitted

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